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TI Antibodies to collagen IV in the serum of workers exposed to hydrocarbons and volatile organic chemicals
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SO Biomarkers (1997), 2(1), 63-65
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PB Taylor & Francis
DT Journal
LA English
CC 4-5 (Toxicology)
AB Significant nos. of workers (14%) chronically exposed to volatile organic chems. commonly found in spray paints had elevated levels of **uncharacterized antibodies** to collagen IV, a basement membrane protein. No increased frequency of subjects with pos. results for anti-glomerular basement membrane antibodies (anti-GBM) was found in this group. These anti-GBM antibodies are directed against a specific epitope on the non-collagenous domain (NC1) of the $\alpha 3$ chain of collagen IV. Anti-GBM antibodies are diagnostic for Goodpasture's syndrome that has been reported to occur following acute inhalation of volatile substances. In another group of workers, exposed both dermally and by inhalation to petroleum-based oil mists, 5% had pos. results for anti-GBM antibodies. We conclude that the measurement of general, **uncharacterized antibodies** to collagen IV may be a useful indicator of basement membrane damage in workers occupationally exposed to volatile organic chems.
ST antibody collagen IV blood hydrocarbon worker; volatile org chem antibody collagen IV
IT Kidney, disease
(Goodpasture's syndrome; collagen IV antibodies in serum of workers exposed to hydrocarbons and volatile organic chems.)
IT Hydrocarbons, biological studies
Organic compounds, biological studies
RL: ADV (Adverse effect, including toxicity); POL (Pollutant); BIOL (Biological study); OCCU (Occurrence)
(collagen IV antibodies in serum of workers exposed to hydrocarbons and volatile organic chems.)
IT Basement membrane
(glomerular, antibodies to; collagen IV antibodies in serum of workers exposed to hydrocarbons and volatile organic chems.)
IT Kidney
(glomerulus, basement membrane, antibodies to; basement membrane, antibodies, collagen IV antibodies in serum of workers exposed to hydrocarbons and volatile organic chems.)
IT Antibodies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(to collagen IV and glomerulus basement membrane; collagen IV antibodies in serum of workers exposed to hydrocarbons and volatile organic chems.)
IT Collagens, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(type IV, antibodies; collagen IV antibodies in serum of workers exposed to hydrocarbons and volatile organic chems.)

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